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Colony of Seychelles.

ANNUAL REPORT

OF THE

DEPARTMENT OF AGRICULTURE

FOR THE

YEAR 1924.

IMPERIAL BUREAU OF MYCOLOGY

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Chapter I.

General Remarks.

During 1924 the work of this Department was chiefly confined to the upkeep of a small Botanic Station and several small public gardens in town; to the reafforestation of small portions of unleased Crown Lands including Hermitage estate on which the New Hospital has been built; to the exploitation of small forest reserves for the supply of timber to the Public Works and firewood to various other departments; to the investigation of diseases affecting cocconut palms; to the improvement of essential oil distillation and to the investigation of applications by planters under the Crop Privilege Loan scheme.

Information on agricultural matters was distributed during repeated visits to various estates in Mahé, Praslin, La Digue, Marianne, Silhouette and Des Roches. Two issues of the Agricultural Bulletin were published embodying observations on the manuring of cocconuts, the distillation of essential oils, the diseases of coconut palms, the utilisation of guano deposits, the destruction of rats, scale insects &c. Articles were also published in the British Empire Review and in the East African Journal dealing with Seychelles products.

The small laboratory attached to the department which was discontinued and dismantled 4 years ago is being re-established at the New Hospital where a small laboratory is run for medical work. It is hoped that by linking up the two departments in this matter money will be saved in the purchase of laboratory equipment. Research work in the Colony can only be carried on on a small scale owing to the paucity of the professional staff and because to carry on such work in a really practically useful way costs far more than the Colony could afford.

The necessity of cleaning public gardens which were all in a derelict condition rather handicapped the department's labour force in its routine work of experimental plantations and nurseries.

Chapter II.

Expenditure, Receipts, Sale of Plants, &c.

	Rs	c.
Receipts from plantations	683	95
Sale of timber from Crown Lands	408	79
Sale of timber from Félicité Island ...	565	29
Royalty on guano	14,172	50
Rent of Crown Lands and Buildings ...	23,433	60
Total Receipts	39,264	13

The total expenditure under Agriculture and Crown Lands amounted to Rs 16,510.22 as compared with an expenditure of Rs 24,179.46 for 1923.

Chapter III.

The Vanilla Industry.

The export of vanilla beans during 1924 amounted to 1,429 kilogs and exceeded that of 1923 by 737 kilogs.

The plantations of this orchid are being developed vigorously all over the archipelago and it is reckoned that over 400,000 vines are at present being grown. This represents 350 acres of vanilla and should the present high price of this commodity be maintained, the acreage will be doubled every year for several years to come. In the localities where distilleries refuse of cinnamon leaves is used as a mulch in vanilla plantations and the vines are better attended to several times a year, the orchid is showing much better growth than in former times when no humus forming material was available and the plantations were mulched only once a year. The art of manuring is becoming more and more established in the Colony and nothing will probably do more to counteract root disease than this elementary agricultural operation which was so much neglected in the past. This root disease is not so rife as formerly and when it prevails the precaution is taken of making new plantations and abandoning the old diseased ones.

Reports have reached me that Seychelles vanilla does not last well and that this was due probably to cropping vanilla green and curing it before it is ripe. I quote these reports for what they are worth but this matter of curing vanilla is one which requires the greatest care and attention as it would be easy obviously to give to Seychelles' vanilla a bad name.

Chapter IV.

The Coconut Industry.

The coconut crop of the Colony during 1924 is estimated to have reached 31 million nuts and is the highest ever recorded. The Customs Returns show only 3,185 tons of coprah exported from January 1st to December 31st, 1924, the first consignment leaving Mahé on 14th January 1924 (92 tons) ; but 630 tons were exported on 3rd January 1925. This quantity obviously belongs to the production of the year 1924 since it takes at least 10 days to convert coconuts into coprah and to transport it to town ready for shipment.

The crop may be apportioned as follows as compared with that of 1923:—

	1923.	1924.
Nuts converted into coprah	24,325,000	26,705,000
,, ,, ,, oil	619,200	377,884
,, ,, ,, soap	135,842	16,975
,, exported as such	208,915	177,884
,, consumed locally	4,000,000	4,000,000
Total ...	29,288,957	31,277,743

The crop for 1923 exceeded that of 1922 by 2½ million nuts and this year again the excess over last year was 2 million nuts. This shows conclusively that the conditions of the coconut industry are improving and not deteriorating as so often asserted ; and it is very encouraging that the exportation of coprah which remained at 3,000 tons for so many years has now reached 3,815 tons. There is moreover every indication that the record crop of 1924 will itself be exceeded by the crop of 1925.

There are many reasons to account for this increase which is general all over the Colony, as appears from figures kindly given to me by all planters ; very few estates formed exceptions to this rule. On some estates, especially the outlying islands rich in guano deposits, the crop has nearly doubled during the last 5 years. This general increase is due to manuring : namely with guano on the outlying islands and with distillery refuse and seaweed at Mahé.

It should however be added that the rainfall has been very good in 1923 and 1924 and that on granitic islands with shallow impervious soils nothing is more beneficial to coconuts than a good rainfall exceeding 100 inches a year. At the same time it is far more important than seems generally recognized by planters in the mountainous islands to conserve the rain water in the soil. This is borne out by the fact that several plantations made some 10 years ago by setting fire to the jungle without preserving wooded summits are the worst plantations in the Colony. It seems that in shallow ground which occurs on the mountain slopes of the granitic islands the supply of percolating water from the summits downwards is cut off when the land is deforested all over including the summits and that unless these plantations are terraced and trenched for the preservation of rain water they will hardly ever come into bearing.

An interesting feature shown in the return of the coconut crops month by month, on which I have often remarked before, is the difference between the crop from May to October as compared with that of the remainder of the year. This difference reaches and even exceeds 33% and seems not to be due exclusively to the rains which during the later periods of the year perhaps prevent to some extent the proper pollination of the flowers. There is a periodicity of maximum crop from May to November in Ceylon as well and there the months of heavy rainfall are not the same as in Seychelles. There must be other causes which prevent the nuts from setting and as in many casess the deficiency reaches 40% and even 50% —the matter is worth investigating more closely. Some trees and some estates are evidently more liable to this periodical time of underbearing than others and it is possible that cultural treatment and selection of seednuts would diminish their number—an end greatly to be desired for the sake of small planters especially.

It is very possible that the diseases of coconut palm play a part in the shedding of immature nuts as well as the shortage of the water supply in soils and especially subsoils which are not loosened for the storage of water except on a few estates, but there is no reason why a tree like the coconut palm which under normal conditions produces a bunch of flowers every month should be subject to such reasonable variation although most other fruit trees are, owing to their being subject, more than palms, to periodical seasons of rest and vegetative activity.

The diseases are not however progressing alarmingly. The occurrence of Diplodia and Phytophthora, besides Pestalozzia, has been recorded in a few places but in the majority of cases of diseases it is the little leaf disease, the stem bleeding disease and the injury caused by the Melitomma beetle which as usual are causing the death of a few plants here and there. Spots on the young leaves due to all the above mentioned fungi are very common and the leaf spots caused by Phytophtora are not often more troublesome than those caused by Pestalozzia thus showing that if bud rot is caused by Phytophthora here, it has not yet assumed an epidemic stage.

It is unfortunate that the cause of the little leaf disease has not yet been found as it occurs in most coconut countries. It is the principal leaf disease from which coconut palms are suffering in Seychelles and which is very often taken for bud rot. In Cuba this disease was found lately to be due to attacks of an aphis (*Cerataphis lataniæ*) but this aphis is found here attacking the flower stalks of vanilla round which it congregates under the shelter of its nursing commensal (the *ant, Technomyrmex albipes*) without causing appreciable damage to the orchid. Coconut leaves are such quick growing organs that such a shy insect, were it responsible for the disease, could only be so as leading the way for an attack of some still unknown and more powerful organism. This insect has moreover not been found on coconut palms in the Colony.

At the Mycological Conference held in July last in London, bud rot and bud decay diseases were discussed. In many cases quoted by the members of the Congress, the organism causing bud rot were not certainly established and the tendency was to believe that at least in some instances it is a wilt similar to the banana wilt disease which is known to be the result of poisoning of the root by toxin elaborated by organisms living in the leaves or stems.

In Ceylon the various phytophthoras are being investigated and it is hoped that it will soon be established what are the forms of phytophthora which are to be dreaded in coconut plantations and what precautions are to be taken against them.

Chapter V.

The Rubber Enterprise.

A little less than a ton of Para Rubber was exported during the year under review. Besides the fresh rubber which is still being produced by one estate at Praslin regularly, the amount of rubber exported was supplemented by lots which had remained unsold for some time and which were more or less well preserved. A few planters now realize the mistake they had made in cutting down their rubber trees for use as firewood. The price offered for rubber by the local merchants is at the time of writing 60 cents of a rupee per pound which is quite a remunerative price. The question of producing rubbber in this Colony is not one which has much importance but the method of planting rubber in small plots of suitable land which was advocated 24 years ago still holds good and it is to be regretted that it is not followed. The method is now adopted in other parts of the Empire where rubber is produced by small holders at a lower price than formerly when rubber was exclusively produced on large estates own by big companies.

Chapter VI.

The Essential Oil Industry.

The quantity of essential oils exported during the year amounted to:—

Cinnamon leaf oil	32,216 litres
Cinnamon bark oil	140 „
Clove oil	1,025 „
Patchouli oil	1,008 „
Basilic oil	144 „
Lemon grass oil	79 „

Much apprehension was felt as regards the planting of Clove in Madagascar on a large scale and the competition which is likely to occur in the near future with Madagascar clove oil. Clove oil is generally preferred to cinnamon leaf oil on the market although cinnamon leaf oil from Seychelles reaches the percentage of Eugenol (90—92 %) found in clove oil. The yield of the clove is however much larger than that in cinnamon leaf oil but the yield per acre is about the same, the cinnamon bushes growing more rapidly than clove trees which show in Seychelles very little power of recuperation from pruning.

The preferential treatment (3 fr.50 per kilog) which cinnamon leaf oil receives in France has driven out Seychelles oil to other markets but according to recent information obtained from the authorities at the Imperial Institute the demand in London for Seychelles oil will remain high so long as a sufficient quantity is supplied. The percentage of Eugenol in cinnamon leaf oil from Madagascar and even from Ceylon is on the average far lower than that obtained in Seychelles and this quality of Seychelles oil probably renders it more easily marketable than other similar oils.

Considerable improvement in the distillation of cinnamon leaf oil has been made during the year by several planters. The oil is distilled at a higher steam pressure by Messrs Baty Bergne & Co's Successors and a special arrangement allows the mother liquor (in which 20% of the oil remains), although cold, to be heated before returning to the still without lowering the steam pressure inside. The yield has been nearly doubled in these factories viz., 10 to 12 litres per ton of fresh leaves as compared with 5 or 6 in the past. More fuel and distilling more carefully and for a longer time are naturally required to obtain the increased yield. Wood for fuel is however becoming scarce in the Colony and its market value is increasing so much that the question of burning coal instead, in some cases, is under consideration.

The improvement in the local distillation processes can be gauged by the fact that imported clove stems which used to yield 42 kilogs of oil per ton in a certain still, now yields 55 to 60 kilogs.

Patchouli leaves are still being distilled on a small scale after slight drying and fermentation in the shade ; but the market for this oil seems to be glutted and the demand for it is limited according to certain authorities. It is a great pity for this Colony, because Patchouli yields well and after considerable time involved in experimenting with different processes of culture and manufacture, the planters have become well acquainted with the requirements and cultural treatment of this plant which does well in the shade of coconut plantations.

The same limited demand applies to Basilic oil which can be produced easily but at a higher cost than Patchouli. Ocimum viride oil which contains in Seychelles more thymol than in many other countries was not produced during the year but a planter received towards the end of the year a large order for a supply at a remunerative price.

The citronella and lemon grasses were not produced except at the rate of a few litres owing to the market price being about 6/- per kilog. Better prices are obtained from other oils. So long as cinnamon leaf oil from Seychelles will sell at 5/ to 8/- per pound, there is little chance to induce the planters of this Colony to give up producing it for the problematic advantage to be derived from the production of another oil. However a few perfume plants are now being established and grown on a small scale and others will soon be introduced. These plants will remain as a reserve in case of emergency for bridging over an eventual drop of the price of cinnamon leaf oil. Among others, Palmorosa grass is receiving careful attention now that several varieties of this plant from India have been successfully introduced by this department through the instrumentality of His Honour the present Administrator of the Colony.

Chapter VII.

Rat Destruction.

All planters have realized that a campaign against rats is urgently needed in the Colony where the rocky nature of the country and the kind of crops harvested afford shelter and a constant supply of food to these rodents. A rat-week has been instituted once a year and the results obtained this year have shown that it is a method of destruction to which planters have well responded.

There is no doubt that the number of rats is so great everywhere that the method of destruction by poison is the one that will give the best results. A constant supply of Barium Carbonate is distributed free to all planters and this poison is kept in store for distribution in small quantity at all Police Stations. During the rat-week, several thousand rats are destroyed with it. There is no ground for believing, as some people do, that the poison in question is very dangerous to animals ; according to the authorities 60 to 100 grammes of Barium Carbonate are required to kill a dog while a few grammes would kill a rat. It is for this reason the least dangerous poison to handle and there is no reason why it should be given up so long as the rat will take it.

Destruction by rat terriers was to my knowledge very successful some 15 years ago but the descendants of the pedigree dogs that were introduced at that time have more or less degenerated into useless dogs. An attempt should be made to introduce some more good rat terriers from countries free from rabies (Quarantine measures in this Colony against that disease are difficult).

The next method recommended to planters is trapping ; this is held to be the best method when once the number of rats has been decreased by poisoning. It is proposed to introduce steel trap and runtraps for distribution to planters at cost price. The effective use of traps requires a good knowledge of the habits of rats but there is no reason why skilled rat catchers should not be trained. These rat catchers should however be registered by the Police and work under the control of an authority.

Payment for dead rats and not only for rat tails although strongly advocated is not of much general use except on restricted areas.

Much information on the methods of destroying rats can be obtained from a book lately published by Mr Mark Hovell (John Bale, Sons & Danielson St, Oxford Street, Editors).

Chapter VIII.

Insect Notes.

The insect which is the most destructive to the staple industry in this Colony is the small beetle called Melitoma insulare. It was discovered attacking coconut stems in Seychelles in 1903. Outsides Seychelles, this insect is found in North Madagascar and Senegal but nowhere else. Its life history is pretty well known and here its attacks are limited to coconut stems only inside which the larvæ and even the adults can often be found in considerable numbers. The insect flies only a short distance—hardly more than the distance between two trees—and it is rarely found flying at night although nocturnal in habits. Breeding takes place inside the stems of badly attacked trees where I have found several generations of beetles in many cases. There is no excuse for not dealing with this insect, but unfortunately control is attempted by a few planters only in the Colony; others passively allow trees in full bearing, often worth Rs 40, to fall down after the base of the stems has been eaten out by the larvæ. It is not impossible that the stem bleeding disease which is rife everywhere in the archipelago and which is hardly treated, and also that another undescribed stem rot discovered lately by Professor Nowell (and which is also common in Seychelles) often pave the way for the entrance of the Melitoma. They certainly do so by increasing the number of cracks and fissures which are found at the base of a coconut stem; on the other hand coconut stems are nearly always naturally cracked by growth expansion of the tissues and it has been found by experiment that Melitoma beetles deposit their eggs in cracked stems, whether the cracks are natural or inflicted. It follows that perfectly sound trees are affected by the beetle; as the stem tissue hardens by age however it becomes less and less liable to attack. When no stem bleeding or such kindred diseases exists, the injury inflicted is small and the stem harbours a few insects only. But the young trees of 20 to 25 years, especially when grown under shade, sometimes contain scores of insects in various stages of metamorphosis. As I have pointed out in the past, the tissues surrounding the tunnels eaten out by the Melitoma larvæ decompose; when many larvæ are at work the base of the stem may thus gradually come to contain a mass of decomposed tissue. This is much favoured by the female of the Rhinoceros beetle for the deposit of her eggs; hence the large number of larvæ of the Rhinoceros beetle which may be found in the rotten stem base of a fallen tree, a fact which often gives rise to the erroneous supposition that it is the Rhinoceros beetle which has caused the death of the tree. The small beetle is for that reason overlooked and continues to play havoc unchecked in nearly all plantations. On the other hand the treatment by more advanced planters of stem bleeding and basal stem rot which consists of removing the dead tissues and tarring over the wounds removes the Melitoma larvæ at the same time. This simple practice should be adopted as a routine work on all estates.

The scale insects mostly Pinnaspis buxi, Aspidiotus ficus and Aspidiotus Ansei are still doing harm to coconut plantations and Lecanium viride to citrus and coffee bushes although the latter insect is kept under control by the Cephalosporium fungus during periods of rain. This is shown by the way in which limes, oranges and coffee are bearing heavy crops in many localities instead of remaining fruitless as in former years. A species of Fusarium was identified by the Bureau of Mycology as helping Cephalosporium in keeping in check lecanium nigrum found attacking the perfume plant Ocimum basilicum. A species of Hypocrolla is also instrumental in keeping down the same black scale on Para rubber plants.

It has been thought lately by some planters that the ant locally called "grand galop" (Prenolepis longicornis) was instrumental in ridding our plantations from the small black ant (Technomyrmex albipes) which helps the scale insects in their work of destruction. As a matter of fact these small black ants are decreasing considerably and have ceased to become a household pest in Victoria and neighbourhood; 10 years ago it was impossible to walk about without coming across everywhere long processions of these insects. There is no doubt that Prenolepis or "grand galop" is a powerful predaceous ant but it has existed side by side with Technomyrmex long before any notice was taken by either of these insects. I am informed by the Director of the Imperial Bureau of Entomology that Prenolepis was recorded from Seychelles in 1895 and Technomyrmex as far as back as 1897 and that both are cosmopolitan species. There can hardly therefore be any foundation for the statement that the one ant is driving away the others, as they have existed side by side for ever so long; furthermore there are many localities where to my knowledge Technomyrmex has disappeared without the other predaceous ant being present. The diminution of Technomyrmex is due to the diminution of scale insects excretions on which it feeds.

Chapter IX.

Mycological notes.

The department has been in continued correspondence with the Bureau of Mycology and the Imperial College of Agriculture throughout the year and information of the greatest interest on local plant diseases has been received. It may be summarised as follows :—

1. Dr Butler, Director of the Imperial Bureau of Mycology, identified Phytophthora palmivora in leaf spots on specimens of coconut leaves from Anse Royale and a few other localities. As is known Dr Butler considers this fungus to be the cause of but rot but he has informed us that this form of the disease (leaf spot) is not always fatal to the tree. The advanced stages of this form of bud rot are usually very similar in their symptoms to forms of little leaf disease and the two diseases may easily be confounded.

(Dr Petch of Ceylon kindly informed me lately that the fungus Phytophthora is being worked out in that Colony and that no doubt some more light will soon be thrown on the forms which attack ceconut and other palms producing bud rot or not).

2. The cause of the little leaf disease of coconut and other palms is not yet known to Science.

3. The form of Phytophthora which attacks Cacao does not probably infect coconut trees and there is not much danger in the presence of this fungus in coconut plantations.

4. The specimens sent to Dr Butler were infested with a host of various fungi and these have been identified by him as harmless moulds. In one case from a badly diseased tree at Anse Royale which was attacked by little leaf and stem bleeding, nematode worms were found in the mass of decomposed tissue at the base of the inflorescence. This coconut palm was growing under very moist conditions alongside a leaky pipe. The presence of nematode worms in the tissues of coconut trees is recorded for the first time in Seychelles and needs careful attention as they are a pest in coconut plantations in the West Indies.

5. Leaves of Pandanus utilis (vacoa du pays) at Anse Royale alongside Bradley Road were found to harbour various fungi chiefly Diplodia sp. which caused the leaves to die from the tips towards the stem. Other harmless Diplodias were found on specimens of coconut leaves from Praslin.

Chapter X.

Fisheries.

The articles exported were the following :—

	Quantity	Declared value
	—	—
Calipee	9,167 kilogs	Rs 21,812
Salt fish	11,150 „	„ 2,260
Shark fins	295 „	„ 225
Trepangs	2,558 „	„ 1,656
Turtle oil	800 litres	„ 600
Tortoise shell ...	1,505½ kilogs	„ 76,271

The questioning of regulating the fishing of turtles and carets (hawksbill turtle) has now been settled though it has occupied the attention of Government off and on for many years ; it is still considered that more expert advice is needed. It is unfortunate that so little is known of the habits of life of such interesting and valuable reptiles. It is even still unknown whether they are migratory or not although, owing to the great number of turtles that are being slaughtered at Aldabra for the production of calipee and turtle oil, it is most desirable that we should know whether the hords that lay their eggs on the beaches of Seychelles migrate from Madagascar and East Africa or whether they are animals remaining on the reefs of the archipelago the whole year round. If they come from outside the Colony the question of their utilisation at Aldabra is not so much of importance to the Colony itself as it would be if our own local resources were depleted. There is no doubt however that a reduction in number is already felt in many islands of the Aldabra group corresponding to an increase in other islands of the Amirantes Group. This shows that these reptiles migrate at least from one of our islands to another. This is the reason for which a sanctuary should be reserved for them in the three different groups of islands of the archipelago. One sanctuary at Flat Island near Mahé, one sanctuary in the Amirantes and one sanctuary in the Aldabra Group. The whole question of fisheries, of which the preservation of turtles and carets is only part and parcel, thoroughly deserves the careful attention of one and all in the Colony where the sea resources are perhaps as important as the products of the land.

It is fortunate that the trade in guano has been resumed and that nearly 14,000 tons were exported during the year. More than 250,000 tons await exportation without counting over a million tons of low grade guano which can be used as a fertilizer in coconut plantations.

Chapter XI.

Crown Lands.

All the Crown Lands are leased including the mountain forests of Mahé with the exception of a small forest area at Félicité Island which was reserved for the supply of timber to the Public Works but which is almost depleted. Even the coco de mer valleys at Praslin forming two adjacent blocks and measuring altogether 40 acres are leased but under certain conditions laid down for the preservation of these unique palms. It is to be regretted that the mountain forests at Mahé from which the rivers flowing into Victoria take their rise were leased 3 years ago for the right of cutting down cinnamon trees for the exploitation of their bark and leaves from which valuable essential oils are extracted. These mountain reserves were acquired or exchanged for other Crown Lands in 1909. I am very strongly of opinion that on the expiry of the lease in 3 year's time these mountain forests should be again preserved, for the exploitation of cinnamon trees for their bark involves their serious depletion. Depletion of the mountain forests will mean shortage of that water supply which percolates down the wooded hills to the coconut or other plantations in the low country. When once the rocky and impervious ground is deforested on the summits the coconut palms growing in shallow soils down below will suffer even more than they do now from shortage of percolating water. It should also be borne in mind that our mountain forests have in the past been all exploited, 50 or 60 years ago, for their valuable timber and that the few indigenous trees which remain and which are adapted to moist conditions do not make an good growth when once the environmental conditions are altered cinnamon trees, although not indigenous have come to form a large percentage, certainly more than 50% of the jungle, and when once they are destroyed (as they certainly will be by careless exploitation), bracken ferns and reeds spread at once in the clearings and choke the seedlings of the indigenous trees. These weeds are very difficult afterwards to eradicate without much more expenditure than it would be the case if the canopy of the mountain forests had been left untouched. That is not all. By removing trees from the precipitous slopes of the mountains including the dead capucin trees which are still lying on the ground, the mountain forests are deprived of the humus forming material upon which the success of the new plantations depend. These dead trees form also with their roots still nearly undecomposed, after 100 years, an obstacle to the erosion of the land, not an unimportant feature for the maintenance of the cultivable soil and the water supply on the highlands which are so steep.

The Government has the right of interplanting trees in the leased mountain forests but there are no funds available to keep space with the depletion that actually takes place.

The following trees were set out during the year at Niol and Hermitage estate :—

Niol	680	Eucalyptus tereticornis
„	5,000	Agati (Adenanthera pavonina)
„	609	Bois de table (Heritiera littoralis)
„	50	Sang dragon (Pterocarpus indicus)
„	3,000	Cocoplum (Chrysobolanus icaco)
Hermitage	900	Eucalyptus tereticornis
„	140	Parkia Roxburghii
„	180	Albizzia Moluccana
„	60	Gum Copal (Trachylobium verrucosum)
„	49	Mauritius Benjoin Terminalia Benjoin
„	30	Sang Dragon (Pterocarpus indicus)

Much success is obtained by planting first Albizzia, Parkia, Sang dragon in the ravines and Tecoma leucoxylon, Gum Copal and Agati on the ridges and precipitous grounds and interplanting these trees with coco plum, the whole forming a thick growth after a few years and accumulating an extraordinary amount of organic matter which is so deficient in the soils of Seychelles. There are patches of ground at the Botanic Station sèt out in this way 20 years ago and the thick jungle which is now formed is a strong recommendation for this method of reafforestation in the Colony.

Now that timber has become so scarce and that indigenous slow growing trees like Capucin, bois de natte &c. take so long to become exploitable, the tendency is to plant quick growing trees (Casuarina and Eucalyptus) which are used as firewood. On coral soils Casuarian, Takamaka (Calophyllum and Badamier (Terminalia) are used althongh the number of so called siliciphilous plants which tolerate coral soils in Seychelles is far from being small. From a sylvicultural stand point Sang dragon and Tecoma leucoxylon grow equally well in granitic as in madreperic soils. Bread fruit (Artocarpus incisa) is another example of a siliciphilous tree which grows well on the coral plateaux of this colony. This tree besides giving a large crop of fruits has a tendency to form thick clumps from root suckers and its timber is much appreciated locally as plants for building roofs and partition walls in most houses.

There are so few wooded areas in the Colony from which a supply of timber can be obtained besides Government land, except at prohibitive prices, that the Public Works Department has tapped heavily the Government resources during the year. Over a thousand young Capucin trees of which some were of promising growth were cut down and supplied as posts to the Public Works at nearly half the market price. The forest at Félicité has also been partly sacrificed for the same reason. The few valuable trees remaining on Government land should be cut down only after reaching maturity or decaying stage.

Re-afforestation of the mountain summits or wherever else it may be possible, has become an urgent need. To encourage it on private land this department is arranging to supply seeds or seedlings of suitable trees free of charge.

It is perhaps not generally known in other colonies that Agati (Adenanthera pavonina) yields a very good timber when cut at maturity. I know many houses in the Colony built exclusively with posts and planks from that tree, more than 25 years ago, which, although unpainted, are still in perfect condition. It is a tree of slow growth but which has been adopted by this department for re-afforestation and other purposes. Its leaves are readily eaten by cattle and the tree grows in dry and rocky soils much more readily than the majority of other forest plants.

The dearth of timber is so great that this department has received during the year over a thousand applications for cutting trees in river and other reserves. Even young saplings grown at the Botanic Station were sold to the amount of Rs 339.

P. R. DUPONT,
Director of Agriculture.